

REMARKS

The Office Action dated June 7, 2005, has been carefully reviewed and the foregoing amendment has been made in response thereto. Claim 10 has been canceled. Claims 34-43 stand withdrawn. Thus, claims 1-9, 11-33, and 44-51 are under consideration in the application.

The indication that claims 3-8, 12-17, 20-25, 28-33, and 46-51 contain allowable subject matter is gratefully acknowledged.

The objection to claims 18 and 44 is respectfully traversed. The extraneous periods within claims 18 and 44 have been changed to commas. Thus, the informalities noted in the pending claims have been corrected as required. In addition, various typographical errors in claims 1, 4, 9, 13, 18, 21, 26, 29, 44, and 47 have been corrected.

The rejection of claim 9 under 35 USC 102(b) as being anticipated by Romesburg is respectfully traversed. Claim 9 has been amended to recite that the speech enhancement filter adapts to the audio signal at a first adaptation rate and the echo cancellation system adapts to the filtered audio signal at a second adaptation rate, wherein the first adaptation rate and the second adaptation rate are different from each other so that the speech enhancement filter does not adapt in response to operation of the echo cancellation system and the echo cancellation system does not adapt in response to operation of the speech enhancement filter. As acknowledged in the Office Action, Romesburg does not disclose first and second adaptation rates that are different from each other. Therefore, claim 9 is allowable over Romesburg.

The rejection of claims 1, 18, 26, and 44 under 35 USC 103(a) as being unpatentable over Romesburg in view of Sih is respectfully traversed. Claims 1, 18, 26, and 44 are characterized by first and second adaptation rates that are different from each other so that the speech enhancement filter does not adapt in response to operation of the echo-cancellation system and the echo-cancellation system does not adapt in response to operation of the speech enhancement filter. Romesburg lacks any

disclosure relating to the adaptation rates of its filters. It merely states that the filters will eventually converge (col. 5, lines 36-52).

Sih fails to complete a case of prima facie obviousness. The present invention is an acoustic system wherein acoustic echo and ambient acoustic noise are filtered. In contrast, Sih relates to an echo canceller in an electronic transmission system for canceling electrical echo resulting from electrical reflection of a signal in a transmission line. The problem is not analogous, and no motivation has been shown for adopting filtering techniques for transmission line filtering in the context of processing sound from a microphone in an acoustic system.

Even if the teaching of Sih is combined with Romesburg, it fails to meet the claimed limitations. The claimed adaptation rates are for a speech enhancement filter and an echo-cancellation system. The two filters in Sih are for canceling echoes and for detecting a state of the canceller. There is no noise filtering or speech enhancement. The state filter determines which operating state the canceling filter should be in, e.g., silence, far-end speech, near-end speech, doubletalk (see col. 9, lines 11-15 and col.10, lines 61-66). Adding the state filter of Sih having a different adaptation rate to the system of Romesburg would fail to achieve the function of claims 1, 18, 26, and 44. Sih uses a fast adaptation rate for the state filter in order to quickly determine the correct operating state for the canceling filter. Since Sih does not involve two filters that actually filter the signal of interest, the issue of the filters adapting to one another is not even present.

Regarding claims 2, 11, 19, 27, and 45, Sih fails to disclose or suggest an adaptation rate for a speech enhancement filter that is greater than an adaptation rate for an echo cancellation system. Therefore, claims 1, 2, 11, 18, 19, 26, 27, 44, and 45 are allowable over the cited references.

In view of the foregoing amendment and remarks, claims 1-9, 11-33, and 44-51 are now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark L. Mollon". The signature is fluid and cursive, with the first name "Mark" and last name "Mollon" clearly distinguishable.

Mark L. Mollon
Attorney for Applicant(s)
Reg. No. 31,123

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MacMillan, Sobanski & Todd, LLC
One Maritime Plaza, Fourth Floor
720 Water Street
Toledo, Ohio 43604
(734) 542-0900
(734) 542-9569 (fax)